

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 September 2005 (29.09.2005)

PCT

(10) International Publication Number
WO 2005/090610 A2

(51) International Patent Classification⁷: C12Q 1/68

(21) International Application Number:
PCT/US2005/009157

(22) International Filing Date: 18 March 2005 (18.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/554,516 18 March 2004 (18.03.2004) US

(71) Applicant (for all designated States except US): AD-
VANDX, INC. [US/US]; 25K Olympia Avenue, Woburn,
MA 01801 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): STENDER, Hen-
rik [DK/DK]; Fasanhaven 5, DK-2820 Gentofte (DK). JO-
HANSEN, Thais, T. [DK/DK]; Kastanietofte 6, DK-2950
Vedbaek (DK).

(74) Agent: BUCHANAN, Robert, L.; Edwards & Angell,
LLP, P.O. Box 55874, Boston, MA 02205 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHODS, KITS AND COMPOSITIONS PERTAINING TO FLUORESCENCE QUENCHING USING PNA
PROBES

(57) Abstract: Disclosed for instance, are methods suitable for the detection, identification and/or quantitation of nucleic acid target sequences using probes. Suitable probes include those consisting of peptide nucleic acid (PNA) or locked nucleic acid (LNA) units. Binding of the probes to adjacent target sequences results in fluorescent quenching. Analysis of changes in the fluorescent signal is used to detect, identify or quantitate a target sequence in a sample. The invention is more specifically directed to methods for improving the sensitivity, specificity and/or reliability of diagnostic tests using suitable probes. It is particularly well-suited for real-time PCR and related amplification reaction.



WO 2005/090610 A2

THIS PAGE BLANK (USPTO)